

What is claimed is:

1. An interfering RNA that inhibits the expression of GP153.
- 2 The interfering RNA of claim 1, wherein the interfering RNA targets the sequence of SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5 or SEQ ID NO:6.
- 5 3. The interfering RNA of claim 1, wherein the interfering RNA inhibits tumorigenesis, tumor development, tumor maintenance, tumor recurrence, tumor growth, or growth of tumor cells *in vitro*.
4. A method of inducing apoptosis in a cell, comprising contacting the cell with an effective amount of the interfering RNA of claim 1.
- 10 5. A method of treating a hyperproliferative condition in a mammal, comprising administering to the mammal an effective amount of the interfering RNA of claim 1.
6. The method of claim 5, wherein the hyperproliferative condition is a cancer.
- 15 7. The method of claim 5, further comprising the step of administering a second therapeutic agent to the mammal.
8. The method of claim 6, wherein said second therapeutic agent is selected from the group consisting of an anti-angiogenic agent, anti-metastatic agent, agent that induces hypoxia, agent that induces apoptosis, and an agent that inhibits cell survival signals.
- 20 9. An antibody that specifically binds to GP153 and inhibits tumorigenesis, tumor development, tumor maintenance, tumor recurrence or tumor growth.
10. The antibody of claim 9, wherein the antibody binds to a GP153 fragment consisting of amino acids 30-704 of SEQ ID NO:1.
- 25 11. The antibody of claim 10, wherein the antibody binds to a GP153 fragment consisting of amino acids 30-280 of SEQ ID NO:1.
12. The antibody of claim 10, wherein the antibody binds to a GP153 fragment consisting of amino acids 236-488 of SEQ ID NO:1.

13. The antibody of claim 10, wherein the antibody binds to a GP153 fragment consisting of amino acids 500-704 of SEQ ID NO:1.
14. A method of inducing apoptosis in a cell, comprising contacting the cell with an effective amount of the antibody of claim 9.
- 5 15. A method of treating a hyperproliferative condition in a mammal, comprising administering to the mammal an effective amount of the antibody of claim 9.
16. The method of claim 15, wherein the hyperproliferative condition is a cancer.
- 10 17. The method of claim 15, further comprising the step of administering a second therapeutic agent to the mammal.
18. The method of claim 17, wherein the second therapeutic agent is selected from the group consisting of an anti-angiogenic agent, anti-metastatic agent, agent that induces hypoxia, agent that induces apoptosis, and an agent that inhibits cell survival signals.
- 15 19. A host cell comprising a recombinant DNA comprising a GP153-encoding sequence operably linked to an expression control sequence, wherein the host cell further comprises a genetic mutation that causes the host cell to have a greater likelihood of becoming a cancer cell than a cell not comprising the genetic mutation.
- 20 20. The cell of claim 19, where the genetic mutation is in a tumor suppressor gene.
21. A genetically modified non-human mammal at least some of whose cells comprise a recombinant GP153-encoding nucleotide sequence operably linked to an expression control sequence, and a genetic mutation that causes the mammal to have a greater susceptibility to cancer than a mammal not comprising the genetic mutation.
- 25 22. The genetically modified nonhuman mammal of claim 21, where the genetic mutation is in a tumor suppressor gene.

23. The genetically modified nonhuman mammal of claim 21, wherein all of the mammal's cells comprise a recombinant GP153-encoding nucleic acid operably linked to an expression control sequence, and a genetic mutation that causes the mammal to have a greater susceptibility to cancer than a mammal not comprising the genetic mutation.

24. The genetically modified nonhuman mammal of claim 21, wherein the mammal is a chimeric mammal at least some of whose, but not all of whose, somatic cells comprise a recombinant GP153-encoding nucleic acid operably linked to an expression control sequence, and a genetic mutation that causes the mammal to have a greater susceptibility to cancer than a mammal not comprising the genetic mutation.

25. The chimeric mammal of claim 24, wherein the percentage of somatic cells comprising a recombinant GP153-encoding nucleic acid operably linked to an expression control sequence, and a genetic mutation that causes the mammal to have a greater susceptibility to cancer is between 5% and 95%.

26. The chimeric mammal of claim 25, wherein the percentage of somatic cells comprising the recombinant GP153-encoding nucleic acid operably linked to an expression control sequence, and the genetic mutation that causes the mammal to have a greater susceptibility to cancer is between 15% and 85%.

27. The genetically modified nonhuman mammal of claim 21, wherein the GP153-encoding nucleic acid is operably linked to a tissue-specific expression system.

28. A genetically modified nonhuman mammal, wherein the genetic modification reduces or eliminates expression of the mammal's endogenous GP153 genes.

29. The mammal of claim 28, wherein the genetic modification is a knockout of at least one of the mammal's endogenous GP153 alleles.

30. The mammal of claim 28, wherein the genetic modification is addition of an RNAi expression construct targeting GP153 gene expression.

31. The mammal of claim 28, wherein the genetic modification eliminates expression of the mammal's endogenous GP153 genes in a tissue-specific manner.

32. The mammal of claim 28, wherein the mammal is chimeric with respect to the genetic modification.

5 33. A screening method for identifying a compound useful for treating a hyperproliferative condition, comprising:

(a) identifying a biomarker whose level correlates with inhibition of GP153 activity; and

10 (b) detecting a change in the level of the biomarker in the presence of a test compound relative to the level of the biomarker detected in the absence of the test compound.

34. The method of claim 33, wherein the hyperproliferative condition is cancer.

35. A screening method for identifying a compound useful in treatment of a hyperproliferative condition comprising:

15 (a) providing an inhibitor of GP153 expression or activity;

(b) identifying a negative control biomarker pattern formed by a plurality of biomarkers in a cancer cell wherein the cell is not contacted with the inhibitor of GP153 expression or activity;

20 (c) identifying a positive control biomarker pattern formed by a plurality of biomarkers in the cancer cell wherein the cancer cell is contacted with the inhibitor of GP153 expression or activity;

(d) identifying a test biomarker pattern formed by a plurality of biomarkers in the cancer cell wherein the cancer cell is contacted with a candidate compound but not contracted with the inhibitor of GP153 expression or activity; and

25 (e) comparing the negative control biomarker pattern, positive control biomarker pattern and test biomarker pattern,

detecting a greater similarity between the positive control biomarker pattern and the test biomarker pattern than between the negative control biomarker pattern and the test biomarker pattern.

36. The method of claim 35, wherein the hyperproliferative condition is cancer.
37. A polypeptide consisting essentially of amino acids 30-280 of SEQ ID NO:1.
38. A fusion protein comprising the polypeptide of claim 37.
- 5 39. A polypeptide consisting essentially of amino acids 236-488 of SEQ ID NO:1.
40. A fusion protein comprising the polypeptide of claim 39.
41. A polypeptide consisting essentially of amino acids 500-704 of SEQ ID NO:1.
- 10 42. A fusion protein comprising the polypeptide of claim 41.